

REMARKS**Summary of the Office Action**

Claims 1 and 3-8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's Admitted Prior Art (hereinafter "AAPA") in view of Ogiu et al. (U.S. Patent No. 5,098,630) (hereinafter "Ogiu") and further in view of Akio (U.S. Patent No. 5,691,548) (hereinafter "Akio").

Summary of the Response to the Office Action

Applicant has amended dependent claim 5 by adding features of previous claim 1 to rewrite dependent claim 5 in independent form. Accordingly, claim 1 has been canceled without prejudice or disclaimer. As a result, the dependencies of dependent claims 3, 6, 7 and 8, have been newly-amended to now be dependent on newly-amended independent claim 5 of the instant application. In addition, newly-amended independent claim 5 has been even further amended, and new dependent claim 9 has been added, to differently describe embodiments of the disclosure of the instant application. Accordingly, claims 3-9 are currently pending for consideration.

Rejection under 35 U.S.C. § 103(a)

Claims 1 and 3-8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over AAPA in view of Ogiu and further in view of Akio. Applicant has amended dependent claim 5 by adding features of previous claim 1 to rewrite dependent claim 5 in independent form. Accordingly, claim 1 has been canceled without prejudice or disclaimer. As a result, the dependencies of dependent claims 3, 6, 7 and 8, have been newly-amended to now

be dependent on newly-amended independent claim 5 of the instant application. In addition, newly-amended independent claim 5 has also been further amended to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to still apply to the claims as newly-amended, the rejections are respectfully traversed for at least the following reasons.

The Examiner states at page 5 of the Office Action that AAPA discloses the features of claim 5 of the instant application. However, Applicant respectfully submits that AAPA does not disclose the features of claim 5 of the instant application. According to the features of the previous form of claim 5 of the instant application, a chipping (cracking) in a dicing operation is prevented by forming a chamfered portion at the corner of the window plate, that is, at the position where two dicing lines intersect with each other in the dicing operation. See paragraph [0059] of the specification of the instant application. Also, Applicant respectfully submits that the generation of a void in the resin layer 13b is prevented because the hole portions 14b function as outlets for air when the window plate 14 is to be pressed lightly against the resin layer 13b in a bonding operation. As a result, the surface S3 of the resin layer 13b can be flattened sufficiently. See paragraphs [0056] and [0062] of the specification, and Figs. 17 and 23, of the instant application. Applicant respectfully submits that AAPA does not disclose the above-underlined significant effects achieved by the features of previous dependent claim 5 of the instant application.

Nevertheless, in an effort to advance the prosecution of this application, Applicant has decided to amend claim 5 by incorporating the features of previous claim 1, and thus rewriting claim 5 in independent form. In addition, claim 5 has been even further amended by adding a feature in that the surface of the coating layer is exposed from a chamfered portion. Support for

this feature is found, for example, in the description of paragraph [0058] of the specification of the instant application that teaches that “the surface S3 of the coating layer 13 (resin layer 13b) is exposed from the chamfered portions 14a.”

Applicant respectfully submits that AAPA does not disclose this newly-added feature of newly-amended independent claim 5 in that the surface of the coating layer is exposed from a chamfered portion. Applicant respectfully submits that, according to this feature, the corner of the semiconductor substrate is protected by the coating layer. Therefore, chipping (cracking) is prevented even if an external force is applied to the corner of the semiconductor substrate when handling the photodetector. Applicant respectfully submits that AAPA does not disclose the above-underlined effect achieved by this newly-added feature in that the surface of the coating layer is exposed from a chamfered portion.

Accordingly, Applicant respectfully asserts that the rejections under 35 U.S.C. § 103(a) should be withdrawn because AAPA, Ogiu, and Akio, whether taken separately or combined, do not teach or suggest each feature of independent claim 5 of the instant application, as newly-amended. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” Since the prior art does not disclose or suggest any of the combinations recited in Applicant’s claims, and if anything appears to teach away from the current claim recitations, KSR Int’l Co. v. Teleflex Inc., 127 S.Ct. 1727 (2007), Applicant submits that such recited combinations would not have been obvious in view of the applied references of record, whether taken alone or combined in the manner suggested by the Examiner in the Office Action.

Furthermore, Applicant respectfully asserts that the dependent claims 3-4 and 6-8, as well as newly-added dependent claim 9, are allowable at least because of their dependence from newly-amended independent claim 5, the reasons discussed previously, and further reasons discussed in the following paragraphs.

With regard to dependent claims 7 and 8, the Office Action asserts that AAPA discloses the features of these claims based on the N⁺ type region 103. However, Applicant respectfully traverses such an assertion because AAPA does not disclose the features of dependent claims 7 and 8 of the instant application.

With regard to newly-added dependent claim 9, support for which is found, for example, in Fig. 1 and original claims 7 and 8, claim 9 describes that “a highly-doped impurity semiconductor layer with impurities of the first conductive type added thereto at a high concentration is provided in the second superficial surface layer from the bottom portion of the recessed portion to the outer edge portion of said semiconductor substrate continuously.” Applicant respectfully submits that AAPA does not disclose these features of newly-added dependent claim 9.

CONCLUSION

In view of the foregoing discussion, Applicant respectfully requests the entry of the amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573.

This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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